

Fostering Openness in Education: Considerations for Sustainable Policy-Making

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Abstract

This paper reviews a framework to support the co-creation of policies to sustainably foster Open Education. The framework has been derived from a comprehensive review of public and Open Education policy documents and related literature, as well as identification and consideration of contiguous issues in the education landscape that directly impact openness and can potentially derail policies, including datafication, copyright reforms, and the unbundling of services into component parts.

The open policy framework, along with a canvas and set of change cards and a dynamic grounded in the participation and co-creation standard developed by the Open Government Partnership, have been used in three workshops piloted during 2018, to facilitate co-design of Open Education policies, by discussing contexts, objectives and challenges with policymakers and advisors both at national and institutional levels, policymakers and advocates with a series of tools and advise to enable arenas to co-create open-education policies.

Keywords: Open Education, Educational Policy, Copyright Reform, Open Learning Recognition

Introduction: open education policy for contemporary education ecosystems

In education, we are witnessing a shift from analogue to digital across both content and practice - a shift which enables, though certainly does not guarantee, a parallel move from closed to open. The philosophy of the Open Education (OE) movement is based on the idea that knowledge is a public good which should reside in the public domain, for everyone to share, use, and reuse (UNESCO, 2002; Gourley & Lane, 2009; Andrade, Ehlers, Caine, Carneiro & Conole, 2011; Rolfe, 2012; McAndrew, Farrow, Law & Elliot-Cirigottis, 2012; Abeywardena, Tham & Raviraja, 2012; Willems & Bossu, 2012; Jacobi & van der Woert, 2012).

Digitally-driven forms of openness such as Open Educational Resources (OER) and Massive Open Online Courses (MOOCs) have been heralded as greatly beneficial to learners and educators (Lane, 2009; Ehlers & Conole, 2010). The concept of OER as an enabler of 'universal' education was introduced in 2002 by UNESCO, defining them as educational resources that are openly available and modifiable by anyone, without the need to pay royalties or licence fees; similar perspectives have been echoed by the OECD (2007), and by UNESCO (2012). However, this definition is evolving and adapting to the changing technological and social landscapes, and to legal and policy frameworks regulating educational systems and markets. The rise of OER has further enabled a wider discussion about Open Educational Practices (OEP) which recognises a diversity and history of initiatives opening-up access to education, embracing openness as a pedagogical approach that involves networked and collaborative open approaches to learning and teaching, as well as the creation and use of OER (Havemann, 2016; Cronin, 2017).

International OE declarations (e.g. Cape Town, 2007, Paris, 2012) have called for an OE ethos to be embedded within wider education policy, as it is understood as a key spur to democratise access to quality education. Nowadays, a series of international initiatives are attempting to stimulate action on educational and scientific openness, including guidelines to foster sustainable policies (Zajda, 2005; UNESCO, 2012; Swan, 2012; UNESCO & UNICEF, 2015; Deepwell, Weller, Campbell & Wilson, 2017; Amiel, da Cruz Duran & da Costa, 2017; Hecker et al., 2018; OpenMed, 2018). Yet, the question of precisely what *sustainability* represents within OE policy continues to be debated (MacKinnon, Pasfield-Neofitou, Manns & Grant, 2016; Oliver & Cairney, 2019).

Most European Member States now include opening-up education among their education policy objectives (Inamorato dos Santos et al., 2017); in addition, OE national commitments have been made via the Open Government Partnership (OGP). However, most initiatives still tend to focus on the provision of OER rather than fostering the development of OEP (Conole, 2012). Furthermore, in our view, OE supranational and national policy guidelines, tend to focus on fostering the production and dissemination OER or MOOCs, and thereby treat these somewhat in isolation from the wider education sectors, and the current social and economic contexts in which these sectors operate. Consequently, our aim in this paper is to present a panorama of the current OE policy-landscape which includes some key contiguous issues, which are transforming educational ecosystems and have the potential to derail or pose challenges to the implementation of OE initiatives.

These issues are, in the first instance, datafication of education, as nowadays, as data is used to monitor almost every educational and research activity, affecting policy-making in education and science (Mandinach, Honey & Light, 2006; OECD, 2015). Secondly, we review a recent suite of copyright reforms, as changes in intellectual property (IP) legal frameworks can drastically change and limit public access to knowledge and information (Nobre, 2017). Finally, we discuss the challenges of unbundling and open-accreditation systems, as the roles of these emerging practices need to be considered if they are to be harnessed in the service of universal access to not only knowledge, but, recognised credentials (Swinerton et al., 2018).

The paper therefore presents a landscape review of OE policy, combined with our analysis of the impact of these key contiguous issues, forming a framework for sustainable policy development. In addition, we discuss our use of this framework as the basis for a series of policy co-creation workshops that aimed at ensuring that co-created policies have a real impact in the target community, following the recommendations for successful policy implementation given by Macintosh and Whyte (2008) and Oxman et al. (2010).

The workshop was piloted in October 2018 during two international events, the OpenMed project final conference¹ (Rome) and the OE Policy Forum² (Warsaw). We contrast the feedback and data obtained from the pilot workshop participants with our findings from the reviewed literature to identify the key elements needed to foster sustainable OE policies.

Context: where does openness stand in educational policy?

Several high-profile OE policy developments have occurred in recent years. UNESCO has fostered OE policy discussions from the 1st Global OER Forum³ to the 2nd World OER Congress⁴. Also, the EC's OpenEdu Policies project⁵ has analysed OE policies across the 28 EU Member States, identifying different typologies of policies aiming at opening-up education. Also, the OpenMed project⁶ has published guidelines for OE policymaking in South-Mediterranean Countries. Furthermore, in the last years some countries have included OE-related commitments within OGP National Action Plans (NAPs), showcasing how OE can interconnect within wider policy actions and priorities. In the following pages we analyse these policy developments, underlining whether the three issues introduced above (datafication of education, copyright reform and OE accreditation) are somehow considered within the current OE policy-landscape.

From Paris to Ljubljana: supranational initiatives

Recent years may have given the impression of a gradual saturation of international policy recommendations on OE, without much take-up by public bodies, perhaps exemplified by the 2012 Paris World Declaration on OER, which aimed to raise the OE awareness of governments and institutions (UNESCO, 2012; Pawlowski & Hoel, 2012). To foster direct interaction between stakeholders, there was a need to move beyond advocacy, and the 2nd World OER Congress (Ljubljana, 2017) was therefore designed to be the culmination of five phases, each of which produced tangible results.

The first phase mapped the state of OER globally by surveying government and stakeholders. Responses were received from 102 countries and over 600 stakeholders responded, and these results are summarised in *OER: Global Report 2017* (COL, 2017). This led to six regional consultations with 105 countries, building towards the 2nd World OER Congress. The second phase of the Congress produced the *Ljubljana OER Action Plan 2017* (UNESCO, 2017), and operationalised it with 30 ministries committing to it through a ministerial statement⁷, fostering, as a third phase, the

¹OpenMed project conference <https://openmedproject.eu/openmed-final-conference-in-rome/>

²Open Education Policy Forum <https://oerpolicy.eu/events/open-education-policy-forum-2018/>

³UNESCO, 1st Global OER Forum – 2002 <http://www.unesco.org/new/en/doha/communication-information/open-educational-resources/>

⁴2nd World OER Congress, Ljubljana, 18–20 September 2017 <https://www.oercongress.org>

⁵Going Open: Policy Recommendations on Open Education in Europe (OpenEdu Policies) <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/going-open-policy-recommendations-open-education-europe-openedu-policies>

⁶OpenMed Project 2019: Recommendations from OpenMed to University leaders and policy makers for opening up Higher Education in the South-Mediterranean by 2030 <https://openmedproject.eu/recommendations/>

⁷Ministerial statement, https://en.unesco.org/sites/default/files/oer_congress_2017_ministerial_statement.pdf

creation of a *Dynamic Coalition of Governments in OER and OE*⁸, to operate within those countries to research, develop, deploy and exchange OER and OE solutions, practices and policies.

Finally, these building blocks, paved the route to create a global OER policy framework to influence the development of legal frameworks and practices in OER in 195 Member States. Further to the adoption of Resolution 44 “*Desirability of a standard-setting instrument on international collaboration in the field of OER*” at the 39th Session of the UNESCO General Conference, a draft text was shared for the UNESCO Recommendation on OER⁹.

Open Education policies at EU national level

A recent European Commission's Joint Research Centre (JRC) OE policy review, presents a series OE policies which were analysed using the Framework produced by Inamorato dos Santos, Punie and Castaño-Muñoz (2016), that identifies six core dimensions: *access, content, pedagogy, recognition, collaboration and research*, and four transversal dimensions: *strategy, technology, quality and leadership*. Most of the policies analysed include some of these dimensions, showing that the understanding of OE by the majority of European policymakers goes beyond OER and open content (Inamorato dos Santos et al., 2017).

The study identified four categories of policies connected to OE:

1. Policies focusing on opening up education through OER and OEP;
2. Policies relating to ICT for learning with some OE component;
3. Comprehensive strategic educational policies with some OE component; and,
4. National Commitments within OGP action plans with OE components.

As expected, the state of the art across the EU is a composite of alternative approaches and levels of engagement. For example: the Estonian *Lifelong Learning Strategy* supports platforms for sharing OER amongst teachers; Germany's *Mainstreaming OER* programme aims at fostering OER and MOOCs; Ireland has a dedicated funding mechanism with emphasis on Open Access that includes OER; in Italy a number of OER and MOOC-related activities have been started without any direct public policy support; the Netherlands' policy aims at modernising HE with a strong component of OER; Poland's Programme for *Knowledge Education Development* explicitly states that all EU funded resources should be openly-licensed; and, in Scotland, their OEP plan works to build capacity of educators, based on the experience of their leading national universities.

Despite the diverse local approaches, the aforementioned study has identified some common enablers for OE to thrive, including prioritising the development of OE policies alongside with raising awareness of OE among leaders and educators by building and developing capacities for educators to empower and incentivise them in adopting OEP, while supporting grassroots communities and coalitions to foster OE initiatives.

Open education in the Open Government Partnership

OGP is key arena in which drives toward greater openness are interacting with education and related policy concerns. To understand how states pledge to foster OE, 216 education-related national commitments were retrieved from the OGP database, and those focusing in OE were reviewed.

⁸Dynamic Coalition of Governments in OER and OE: <https://www.oercongress.org/congress/dynamic-coalition/>

⁹UNESCO Recommendations in OER, <https://www.oercongress.org/unesco-oer-recommendation/>

As OE-related commitments are co-created by the civil society, OE advocates and education ministries, this collaborative method is a good practice to encourage governments to support OE initiatives, as can be seen below.

In Brazil, thanks to the work of the *Iniciativa Educação Aberta*¹⁰ and *Educar Digital*¹¹, the country has pledged to provide a platform for the continuous use and adaptation of OER, valuing the plurality and diversity of Brazilian education¹². Chile, through the work of the Library of Congress and the Open Government Academic Network¹³ is developing an OER-based competency framework for citizenship education at school level. The US, and because of the advocacy of SPARC¹⁴, has committed to expand access to educational resources through open-licensing and technology, with a view to thereby increasing access to high quality education and reducing the cost of educational opportunities in the US and around the world. In the case of Slovakia, thanks to the efforts of the Alliance for OE in Slovakia¹⁵, the country has committed to identify existing teaching and learning materials that can be openly-licensed towards promoting the reuse of educational resources.

In the case of Greece¹⁶, its Ministry of Education, Research and Religious Affairs has proposed the development a platform to make OER available to the public, educators and students. In Romania¹⁷, a joint effort by the Ministry of National Education and the Romanian OER Coalition aim at providing a Virtual School Library including OER especially for secondary education. In Spain¹⁸, the Ministry of Education, Culture and Sports aimed at promoting the use of OER, guaranteeing that educational resources produced with public funding are accessible to all.

As noted by Gondol and Allen (2015), “Support from national governments can help accelerate the open education movement both directly through supportive policies and projects, and indirectly by promoting awareness and support within civil society” (p. 275). However, and despite that improving access to education is widely discussed in the OGP commitments, concomitance between stated intentions to foster OE, and the commitments themselves is lacking, as these are mostly focused on the provision of platforms, rather than on much-needed capacity-building and OEP.

Contemporary issues for OE policy

OE initiatives form part of a larger education ecosystem (Bindé & Matsuura, 2005; Jacobi & van der Woert, 2013; Thorne, 2016; Alevizou, 2017), which in turn exists in an interdependent relationship with society, culture, economy, and governance. Consequently, OE is not only driven or impacted by OE or even education policy, and OE policy-makers must take a wide-angle view of the landscape

¹⁰Iniciativa Educação Aberta: <https://aberta.org.br>

¹¹Educar Digital: <https://www.educadigital.org.br/site/>

¹²Educação e Governo Aberto <http://governoaberto.cgu.gov.br/noticias/2017/educacao-e-governo-aberto>

¹³Open Education in Chile: small steps in an adverse context <http://education.okfn.org/open-education-in-chile-small-steps-in-an-adverse-context/>

¹⁴White House Announces Open Education Initiative in Open Government Plan <https://sparcopen.org/news/2014/white-house-announces-open-education-initiative-in-open-government-plan/>

¹⁵Alliance for OE in Slovakia: <https://oerpolicy.eu/countries/slovakia/>

¹⁶Greece 3rd National Action Plan: http://www.opengovpartnership.org/sites/default/files/GREEK_NAP3-OGP-ENG.pdf

¹⁷OE Commitment, Romania: http://ogp.gov.ro/wp-content/uploads/2018/11/Romania-2018-2020_NAP_EN.pdf

¹⁸Spain, Second National Action Plan: <http://www.opengovpartnership.org/sites/default/files/II%20Plan%20de%20Acción%20Open%20Government%20Partnership%20DEF%20%281%29.pdf>

within such practices occur. Therefore, aside from explicitly OE-focused considerations, our literature review and subsequent workshop discussions facilitated the identification of three policy-sensitive areas where participants expressed the need for support:

1. Use of data in education and educational policy;
2. IP licensing, copyright and copyright reform;
3. Unbundling and Open Learning accreditation.

Datafication of education

We live in a datafied society (van Es & Schäfer, 2017), consequently, data has pervaded different domains of education, including policy-making. Learning analytics and educational data-mining are often perceived as a panacea for optimising learning and increasing efficiency through personalisation and data-driven interventions (Baker & Inventado, 2014). This tendency, widely known as ‘datafication’ of education (Selwyn, 2015; Lupton & Williamson, 2017), turns students and learning activities into data-producers for statistical and algorithmic analysis, used to validate arguments, rearticulate educational discourses and, construct policy (Williamson, 2016).

Education-related data is neither transparent nor innocuous. Data has become the key element to assess learning-performance in education, and the need to produce data to justify educational activities is jostling against traditional imperatives such as curricular design (Atenas & Havemann, 2019). When developing policy to support OE, we need to consider the relationship between datafication of education and the broader rise of surveillance capitalism (Zuboff, 2015), as performance-data can be used as currency when sold on to third parties, while offering an apparently free service.

Acquiring services from for-profit ed-tech providers and publishers carries the risk of tracking and monetising data generated as a result of learner interaction with platforms and content, which may well include OER, MOOCs and Open-Textbooks (Anderson, 2013; Jones, Ryberg & de Laat, 2015; Rienties et al., 2016). As van Dijck and Poell (2015) have noted, the main MOOCs corporate providers “are built on the same mechanisms underpinning the ecosystem of connective platforms: datafication, (algorithmic) selection, and commodification” (p. 2675).

Learners’ data, when crossed with socio-economic data released by governments can provide tools, opportunities and a landscape perspective to aid understanding of a society’s key educational challenges, and supporting policymakers to develop strategies to improve education; however, it can open up windows for surveillance, discrimination and unethical uses of data by tech corporations and governments (Kupchik et al., 2009, Fuchs, 2013; Srnicek 2016; Sadowski, 2018). Therefore, at policy level, Mapstone, Buitendijk and Wiberg (2014) recommend, “public and philanthropic opportunities for supporting online learning” (p. 14), instead of fostering opportunities for venture capitalist investments operating under a freemium model.

Critical perspectives questioning the ethical implications and possible ramifications of tracking students’ behaviour are needed. In this scenario, students need to become data literate, to understand how society operates and how their data is used. Consequently, we argue that open data should be reframed as OER (Atenas & Havemann, 2015; 2019), presenting educators with opportunities develop the literacies people need to participate in the datafied society, as for Eynon (2013), “access and use of open data is unlikely to be equally available to everyone due to existing structural inequalities” (p. 239).

Therefore, the use of data to foster problem and research-based learning activities allow students to learn and experiment using the same raw data researchers, governments, civil society, international organisations, and policy-makers generate and use, to foster information, statistical, scientific, media,

political, critical thinking, collaborative and citizenship skills, narrowing the participation and knowledge gap (Johnson, 2014; Atenas & Havemann, 2015; Manca, Atenas, Ciociola, & Nascimbeni, 2017).

Copyright reforms

The OE community has placed a high priority on communicating the value of openly-licensing educational materials to facilitate their reuse and adaptation (Kapitzke, Dezuanni & Iyer, 2011). OER advocates have especially promoted the use of the Creative Commons licensing framework, launched by Lawrence Lessig in 2002¹⁹, the same year in which OER was defined by UNESCO, and the Budapest Open Access declaration was issued. While open-licenses are a logical mechanism to support the democratisation of knowledge, it is worth examining the role of copyright, and the trends towards increasing restrictiveness.

Education is adversely impacted by the limitations placed on access and dissemination of knowledge and information, which are imposed by copyright and intellectual property legal reforms in recent years, as publisher interests have been prioritised. Copyright infringement thereby becomes the norm rather than the exception, threatening to criminalise anyone who uses copyright material for educational purposes.

The current Copyright Reform²⁰ in Europe is imposing barriers to the fair use of digital content. According to Nobre (2017), copyright must empower teaching and learning, but this reform can have a severe impact in the current EU education and science landscapes, affecting national and institutional policies and commitments, by intervening in three main areas: cross-border uses of digital content in education; text and data mining for scientific research; and preservation of heritage in the cultural sector²¹.

The EU directive on Copyright in the digital single market²² aims at harmonising rights across the EU, however, it remains uncertain whether these exceptions will achieve a fair balance between the interests of rights holders, and the users of the copyrighted material. Furthermore, the debate has been asymmetric, as the voice of the publishers' lobby has seemingly been better heard, leading towards corruption and obstruction²³ of the negotiations between educators, scientists, universities and the EU Parliament²⁴. Therefore, according to Communia,²⁵ exceptions and limitations to copyright for education should allow access and reuse of copyrighted content in different formats across borders as currently, the EC focuses only on digitally-supported education leaving unharmonised a large spectrum of non-digital educational activities such as music or arts teaching.²⁶

¹⁹History of Creative Commons <https://certificates.creativecommons.org/cccertedu/chapter/1-1-the-story-of-creative-commons/>

²⁰EU copyright reform, FAQs <https://ec.europa.eu/digital-single-market/en/faq/frequently-asked-questions-copyright-reform>

²¹Directive of the European Parliament - On Copyright in the digital single market - EU copyright reform – COM (2016) 593 final <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52016PC0593>

²²Directive of the European Parliament and of the Council On Copyright in the digital single market <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016PC0593&rid=4>

²³Elsevier are corrupting open science in Europe <https://www.theguardian.com/science/political-science/2018/jun/29/elsevier-are-corrupting-open-science-in-europe>

²⁴Complaint to the European Ombudsman about Elsevier and the Open Science Monitor <https://zenodo.org/record/1314974#.W3QHWi3Myb9>

²⁵Copyright Reform for Education <https://www.communia-association.org/c4ed/>

²⁶Copyright Untangled #4 Important questions about the EC Proposal https://www.communia-association.org/wp-content/uploads/2017/11/4_red_fin2.pdf

The US is meanwhile attempting to postpone and modify the rules for the eventual transfer of copyrighted material into Public Domain, through international agreements (Lessig, 2013), creating a series of debates amongst governments, educators and scholars in the EU²⁷, Uruguay²⁸, US²⁹, New Zealand^{30 31}, Colombia³² and many others, as an instrument used to strengthen copyright in the international arena is the Trans-Pacific Partnership (TPP)³³, which has aimed at increasing the copyright length retroactively, based on the Sonny Bono Copyright Term Extension Act, which includes strong legal enforcement for copyright infringement (Fergusson, Mcminimy & Williams, 2015; Travis, 2016; EFF, 2017).

Unbundling and accreditation of open learning

In the last decades, Higher Education (HE), has been subject to the forces of increasing fees and marketisation, massification and internationalisation, and prevalence of technology in delivery, both in the transfer of distance mode provision to fully online, increasing blendedness of the campus-based experience. At the confluence of these forces has been the growth of ‘unbundling’, the separation of constituent parts of educational services such that they might be recombined in novel ways, which may bring various potential benefits. Of particular interest in the OE community has been the question of how to facilitate learners to gain credentials, as well as knowledge, via open learning routes (Tuomi, 2013).

A key role in this unbundling has been played by MOOCs, which had started as an exploratory form of social, online, peer-to-peer driven learning, but in recent years became the focus of commercial platforms and therefore, somewhat notorious as OE’s most celebrated and critiqued initiative. Platforms, their university partners and the press widely touted MOOCs as a revolution in learning, owing to their free and open online enrolment and close association with elite US universities. As the hype of the MOOC phenomenon cooled, course formats, platforms and audiences have diversified, creating low or no cost opportunities to develop skills, encounter specialist and cutting-edge knowledge from researchers, and potentially earn micro-credentials. Consequently, UNESCO (2018) have argued that accreditation mechanisms should be adopted in order to formally recognise the learning acquired through open courses.

For Swinnerton et al. (2018), however, the unbundling of HE has

“followed the neo-liberal economic logic which has shaped priorities and relationships across all areas of public policy since the 1980s; the influence of internationalisation and a variety of concurrent business models has been particularly visible in HE – especially in the UK as in other English-speaking countries” (p. 3).

²⁷EU copyright for Education <https://www.copyrightforeducation.eu>

²⁸Obras Intelectuales y Artísticas. Reproducción. Regulación. <https://parlamento.gub.uy/documentosyleyes/ficha-asunto/125292>

²⁹US Copyright - Legislative Developments <https://www.copyright.gov/legislation/>

³⁰Economic Modelling on Estimated Effect of Copyright Term Extension on New Zealand Economy <https://www.tpp.mfat.govt.nz/assets/docs/TPP%20-%20Analysis%20of%20Copyright%20term%20extension,%20explanatory%20cover%20note.pdf>

³¹Hon Todd McClay Trans-Pacific Partnership Agreement Amendment Bill - Government Bill 133—3 <http://www.legislation.govt.nz/bill/government/2016/0133/latest/DLM6838023.html>

³²Colombian biologist cleared of criminal charges for posting another scientist’s thesis online <https://www.nature.com/news/colombian-biologist-cleared-of-criminal-charges-for-posting-another-scientist-s-thesis-online-1.22057>

³³Trans-Pacific Partnership <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text>

While Connor (2014) argues that “unbundling the teaching component of faculty work to assign tasks such as facilitation, assessment and academic advice to specialised staff improves both the quality and the cost effectiveness of teaching” (p. 3), for Holmwood (2013) on the other hand, “the playing field is not so much levelled as tilted in favour of for-profits”, who “can enter relieved of university functions other than those of teaching at the lowest cost”.

Educators and learners are at risk in a market-driven model. According to Lynch (2015), the social idea of HE as a common good has been supplanted by the idea of training institutions serving a corporate labour market. For Robertson and Komljenovic (2016), as part of this commodification process, universities are partnering with the private sector, developing new business models by providing those excluded from provision with MOOCs, which then go unaccredited and unrecognised.

The current tendency towards a policy vacuum in terms of credentialing of open learning risks this space being filled by hype of for-profit ventures that are normalising transformations in HE, which affect the most disadvantaged groups, as well as promoting precariousness in academic jobs. If we look at these arguments, we can see that MOOCs are seen as a business opportunity instead of a means to provide universal access to knowledge, and that currently MOOCs are acting to widen social inequalities by catering largely for the already educated (Bass & Eynon, 2017; Czerniewicz, 2018; UNESCO, 2018).

Open education policy co-creation workshops

In addition to conducting the review of policies, OE literature and contemporary issues discussed above, we identified a need for a policy co-creation method which would enable a range of stakeholders to build capacity in OE policy development and consider policy elements in relation to their local contexts.

Workshop design and method

The aim of the workshop is to foster peer-learning amongst policy-makers and bench-learning from global successful OE policies in line with the recommendations from the literature review, the Ljubljana Action Plan (UNESCO, 2017), and the JRC study results (Inamorato dos Santos et al., 2017). Therefore, we provided policy stakeholders with a common knowledge base, a canvas for OE policy design based on the business canvas methodology³⁴ and a set of change cards adapted from those created by the UK Policy Lab³⁵, grounded on the participation and co-creation standard developed by OGP (2017, 2018).

The canvas and cards are used to foster the development of sustainable OE policies at institutional and national level. To design the workshop, we followed the guidance given by Klein, Lankhuizen and Gilsing (2005) that describe the most common errors that lead to failure of policy implementations, and by Sanderson (2002) who showcases a series of recommendations for policy evaluation and guidelines on use of evidence to build policy, to enable successful policy implementations.

The workshops aimed to assess whether or not OE stakeholders considered the elements discussed in the literature as crucial, relevant or unimportant to foster OE policies, to identify elements that are

³⁴Business Model Canvas: A Simple Tool For Designing Innovative Business Models <https://www.forbes.com/sites/tedgreenwald/2012/01/31/business-model-canvas-a-simple-tool-for-designing-innovative-business-models/#a63e30b16a73>

³⁵Change Cards toolkit to help generate ideas and develop your policy project in an agile way <https://openpolicy.blog.gov.uk/2015/07/10/cards-toolkit-to-help-generate-ideas-and-develop-your-policy-project-in-an-agile-way/>

not mentioned in the literature to ensure the impact and success of OE policies, as according to Marsh and Connell (2010), “What constitutes success can differ according to the perspective and/or interests of the participant in, or observer of, the policy process” (p. 581).

Workshop elements

The OE policy elements considered within the workshop are drawn from a diverse range of literature. A key influence was Haddad and Demsky (1995), who recommend to assess the sector drawing on data, research, experience and international knowledge, through a contextual analysis the socio-political, economic, demographic, and cultural conditions, evaluating the interest groups, their rationalities and their roles in education change to foster what Thompson and Cook (2014) call global policy convergence.

During the workshop participants are asked to consider key elements drawn from our review of literature, such as the need to involve a wide range of **processes and partners** in the co-design policy process (Spillane, Reiser & Reimer, 2002; Zajda, 2005; Pawlowski & Hoel, 2012; Oliver & Cairney, 2019), and addresses the need to consider the **context**, for example, any socio-cultural issues at play, and international policy bench-learning (Ball, 1998; Phillips & Ochs, 2004; Start & Hovland, 2004; UNESCO, 2013). Furthermore, participants should identify the key **stakeholders** needed to develop and implement the policy (Bell & Stevenson, 2006; UNESCO, 2015; Inamorato dos Santos, Punie, & Castaño Muñoz, 2016).

In addition, workshop participants review policy **solutions and approaches**, considering research about policies, regulatory models and technical or third party solutions (Haddad, & Demsky, 1995; Davies, 1999; Zajda, 2005; Magno, 2010; UNESCO, 2013; OECD, 2015; OpenMed, 2018) to understand the potential **policy opportunities** (Storesletten & Zilibotti, 2000; Niemi, 2007; Cankaya & Cebeci, 2015; Inamorato dos Santos, Punie & Castaño Muñoz, 2016) and overcome the **challenges and barriers** that can derail a policy (Lindquist, 2001; Phillips & Ochs, 2004; Bell & Stevenson, 2006; Thompson & Cook, 2014).

Finally, participants must identify the **key elements** needed to support and enable a policy (Bell & Stevenson, 2006; Niemi, 2007; Maroulis et al., 2010; UNESCO, 2013; Thompson & Cook, 2014; Inamorato dos Santos et al., 2017), including the **evidence** they need to validate the policy (Sanderson, 2002; Start, & Hovland, 2004; Maroulis et al., 2010; UNESCO, 2013; Thompson & Cook, 2014; EC/EACEA/Eurydice, 2017), and furthermore, identify the policy **beneficiaries** (Storesletten & Zilibotti, 2000; Magno, 2010; UNESCO, 2013; Cankaya & Cebeci, 2015) finally, to understand main **risks** of the policy (Haddad & Demsky, 1995; Ball, 1998; Magno, 2010).

Outcomes of pilot workshops

The workshop methodology was piloted twice at the OpenMed conference (Rome), and the participants were a varied group of stakeholders from Egypt, England, Italy, Jordan, Morocco, Palestine and Spain, comprising 20% females and 80% males. The third pilot took place at the OE Policy Forum (Warsaw), with participants from Germany, Malta, Poland, Romania, Spain, Slovenia, Sweden and The Netherlands, with a group of 40% females and 60% males. Across the pilots, each workshop lasted for two hours, the participants' age ranged from 28 to 55 years, and their roles included HE senior management, government advisors, educators, OE advocates, policy-makers and civil society leaders. At the workshop, participants were asked to discuss a range of possible policy elements. Below we provide a synthesis of their reflections.

The participants agree that the key **process** is collaboration, bench-learning and co-creation with a community. This requires involving as **partners** educators, researchers, librarians and copyright experts, institutional senior management, government advisors, and local and international OE and policy experts, as they can provide a landscape perspective on the **context**, because considering local needs and cultural approaches in education are key to ensure the successful implementation of a policy. Therefore, **stakeholders** need to support senior management, students, educators, unions and quality assurance agencies in understanding the value of the policy.

In relation to **solutions and approaches**, participants favoured reviewing Open Science, Open Access and OE policies and declarations, copyright regulations and accreditation and credit transfer systems at national international level, to ensure coherence amongst policies while identifying potential **policy opportunities** at local level. They also discussed the need for regional platforms to open resources, the importance of fostering capacity building in copyright, open-licensing, Open Science and OEP. Additionally, they highlighted the need to promote certification for learning recognition and to foster regional collaboration for cross-country accreditation.

These elements were regarded as essential to overcome some **challenges and barriers**, examples of which were lack of ICT skills, lack of copyright and IP literacy, and lack of awareness of open practices, amongst educators, senior management, and policymakers. These challenges were highlighted as preventing the recognition of OEP for career progression, and furthermore, preventing funding being unlocked to support implementation.

For the participants, the **key elements** to support and enable a policy are recognition and accreditation of open learning, managerial support and funding to support OE activities. Therefore, as **evidence**, the participants agreed that evaluations from learners and educators on OE-based programmes, and examples from international good practices, data on cost-benefits of OER and attainment data, national educational data and performance data, can help persuading senior management and the government, to understand the value of OE.

Policy **beneficiaries** were primarily understood to be learners and educators, while some mentioned families, as OER may lower the cost of buying resources (e.g. textbooks). Moreover, the participants mentioned that governments and public universities should benefit, as OEP may widen participation in education. However, participants highlighted the importance of assessing the **risks** that OE policies may face, including, management's increasing demand for data collection from learning activities to perform analytics, modifications of copyright regulations, lobbying and collusion by publishers and ed-tech vendors, and furthermore, change of management and governments, as these elements can affect or derail an OE policy.

The participants were enthusiastic and their feedback positive, as the workshop provided OE advocates and stakeholders a space to share ideas and design and draft a policy by exchanging expertise and experiences, fostering participative and inclusive dynamics, as the cards enabled discussions about the different elements of the canvas from an international perspective, allowing the participants to learn each other and to acknowledge their own knowledge gaps. After each workshop, the participants gave us ideas for improvement, such as simplifying the language of the toolkit, giving some people specific roles in the tables, and printing out the instructions so these can be revised during the sessions.

Conclusions and considerations for open education policy-making

Our central theme in this paper is that OE does not occur in a vacuum; ergo, policies aimed at fostering sustainable growth of OEP must acknowledge that such practices sit within a wider landscape

of social, economic and educational ecosystems. This landscape includes widespread efforts to democratise access to research and knowledge through Open Access and Open Science policies; however, the development of national and institutional-level policy focused on opening educational content and practices appears to lag behind. Supranational calls to action have been met with a range of specific national initiatives and commitments, and some degree of take-up from institutions and organisations, but in the main, there remains much further to go to embed OE as a core element of education policy and sector activity. Consequently, in preparing this paper, we sought to examine relevant literature and policies, based upon this review to design a policy co-creation workshop, and further to contrast the results from the workshops against our review of policy and issues.

The results of the pilot workshop discussions tend to confirm the findings of our literature and policy review, indicating that the workshop methodology operated as intended, as a facilitation and capacity-building exercise to structure and deepen discussion around policy issues. Most of the challenges identified during the workshops are connected to copyright and technological developments and to social and behavioural developments, showing a certain dichotomy between the technical and the social understanding of education policy (Bell & Stevenson, 2006).

The workshop results confirmed that OE policy needs to take greater cognisance of three key issues for education: copyright, open accreditation, and datafication. Copyright reform poses challenges that must be considered and addressed at policy design level but also at implementation level, to provide a wide range of actors with the requisite level of copyright literacy. Accreditation of learning through OE, participants agreed this should be addressed by policy beyond experimentation, as learning recognition in fact can be a key OE enabler.

It is necessary to raise awareness of the risks of over quantifying educational activity through analytics and metrics. The relationship between technological developments (including commodification of data) and policy, while less addressed within OE literature, was discussed deeply during the workshops, leading to a consensus view that OE policy should both adapt to, and try to influence, technological developments. Participants tended to agree that policy can hardly anticipate the outcomes of technological innovation, as these are likely to continue to grow at a rapid pace while technology corporations are currently operating in a semi-regulated way, pushing the limits of the possible and ethical at times. Therefore, a key challenge for sustainable OE policy is to remain fit for purpose and as “technology neutral” as possible, while ensuring it addresses not only educational activities, but also, the social and ethical effects and impacts of technologies in **learners’** and educators’ lives.

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